Claims

[c1]   1. In a messaging system, a method for restoring media items to original quality, the method comprising:

upon receipt of a message containing an original media item that is new, storing the original media item in a repository;

generating an identifier for identifying the original media item stored in the repository;

replacing the original media item in the message with a substitute copy that includes said identifier; and

upon future encounter of a particular media item having said identifier, restoring the particular media item to original quality using said identifier.

[c2]   2. The method of claim 1, wherein said original media item comprises a component in user-composed messages.

[c3]   3. The method of claim 1, wherein said messaging system comprises Multimedia Messaging Service (MMS).

[c4]   4. The method of claim 1, wherein said replacing step includes:

using an available data communications channel that ex-

ists for encoding said original media item, in order to encode said identifier.

[c5]   5. The method of claim 1, wherein said restoring step includes:
as the message containing the substitute copy passes through a switching center, restoring the particular media item to original quality by the switching center using the identifier to obtain the original media item stored in the repository.

[c6]   6. The method of claim 1, wherein said restoring step includes:
restoring the particular media item back to a first generation copy.

[c7]   7. The method of claim 1, wherein said messaging system comprises a message switch-based system.

[c8]   8. The method of claim 1, wherein said messaging system is able to allow transmission of a given media item in its original quality or decimate the given media item, as required for a given destination.

[c9]   9. The method of claim 1, wherein the message containing an original media is received from a mobile terminal.

[c10]   10. The method of claim 9, wherein the mobile terminal

communicates via a multimedia messaging protocol.

[c11] 11. The method of claim 1, wherein said identifier comprises an object reference identifier.

[c12] 12. The method of claim 11, wherein said object reference identifier is capable of being embedded in the particular media item.

[c13] 13. The method of claim 12, wherein the object reference identifier is embedded in a header of the particular media item.

[c14] 14. The method of claim 13, wherein said particular media item comprises a JPEG image, and wherein the object reference identifier is embedded in a header for the JPEG image.

[c15] 15. The method of claim 1, wherein the identifier is embedded in the substitute copy as a binary text string.

[c16] 16. The method of claim 15, wherein the binary text string contains sufficient information to allow retrieval of a copy of the original media item stored in the repository.

[c17] 17. The method of claim 1, wherein the identifier employed for the particular media item depends on the particular media item's type.

[c18] 18. The method of claim 1, wherein said restoring step includes:
scanning incoming media items for any preexisting identifiers.

[c19] 19. The method of claim 18, further comprising:
if an incoming media item does not have a preexisting identifier, assigning a new identifier for that incoming media item.

[c20] 20. The method of claim 1, further comprising:
removing from the repository any media item that is stale.

[c21] 21. The method of claim 20, wherein said removing step includes applying an aging mechanism to determine media items that are stale.

[c22] 22. The method of claim 1, wherein the identifier is embedded in a digital watermark employed for the particular media item.

[c23] 23. The method of claim 1, wherein said particular media item comprises an image, and wherein the identifier is embedded in a digital watermark for the image.

[c24] 24. The method of claim 1, wherein the identifier is embedded in a digital watermark for the substitute copy ,

said identifier be embedded as a binary text string.

[c25] 25. The method of claim 1, wherein steps of the method are performed at a server computer that connects to mobile terminals.

[c26] 26. The method of claim 1, wherein at least some steps of the method are performed at mobile terminals, for providing distributed processing.

[c27] 27. The method of claim 1, wherein said message is transmitted via the Internet from a client device to a server.

[c28] 28. The method of claim 27, wherein the client device connects to the Internet via wireless connectivity.

[c29] 29. A computer-readable medium having processor-executable instructions for performing the method of claim 1.

[c30] 30. A downloadable set of processor-executable instructions for performing the method of claim 1.

[c31] 31. A system for restoring media items to original quality, the system comprising:
a messaging system capable of transmitting multimedia messages;
a repository for storing the original media item upon re-

ceipt of a message containing an original media item that is new;

a module for generating an identifier for identifying the original media item stored in the repository;

a module for replacing the original media item in the message with a substitute copy that includes said identifier; and

a module for restoring the particular media item to original quality using said identifier.

[c32] 32. The system of claim 31, wherein said original media item comprises a component in user-composed messages.

[c33] 33. The system of claim 31, wherein said messaging system comprises Multimedia Messaging Service (MMS).

[c34] 34. The system of claim 31, wherein said module for replacing includes:

module for using an available data communications channel that exists for encoding said original media item, in order to encode said identifier.

[c35] 35. The system of claim 31, wherein said module for restoring includes:

module, residing at a switching center, for restoring the particular media item to original quality using the identi-

fier to obtain the original media item stored in the repository.

[c36]   36. The system of claim 31, wherein said module for restoring includes:
module for restoring the particular media item back to a first generation copy.

[c37]   37. The system of claim 31, wherein said messaging system comprises a message switch-based system.

[c38]   38. The system of claim 31, wherein said messaging system is able to allow transmission of a given media item in its original quality or decimate the given media item, as required for a given destination.

[c39]   39. The system of claim 31, wherein the message containing an original media is received from a mobile terminal.

[c40]   40. The system of claim 39, wherein the mobile terminal communicates via a multimedia messaging protocol.

[c41]   41. The system of claim 31, wherein said identifier comprises an object reference identifier.

[c42]   42. The system of claim 41, wherein said object reference identifier is capable of being embedded in the particular media item.

[c43] 43. The system of claim 42, wherein the object reference identifier is embedded in a header of the particular media item.

[c44] 44. The system of claim 43, wherein said particular media item comprises a JPEG image, and wherein the object reference identifier is embedded in a header for the JPEG image.

[c45] 45. The system of claim 31, wherein the identifier is embedded in the substitute copy as a binary text string.

[c46] 46. The system of claim 45, wherein the binary text string contains sufficient information to allow retrieval of a copy of the original media item stored in the repository.

[c47] 47. The system of claim 31, wherein the identifier employed for the particular media item depends on the particular media item's type.

[c48] 48. The system of claim 31, wherein said module for restoring includes:
module for scanning incoming media items for any pre-existing identifiers.

[c49] 49. The system of claim 48, further comprising:
module for assigning a new identifier for that incoming

media item, if an incoming media item does not have a preexisting identifier.

[c50] 50. The system of claim 31, further comprising: module for removing from the repository any media item that is stale.

[c51] 51. The system of claim 50, wherein said module for removing includes applying an aging mechanism to determine media items that are stale.

[c52] 52. The system of claim 31, wherein the identifier is embedded in a digital watermark employed for the particular media item.

[c53] 53. The system of claim 31, wherein said particular media item comprises an image, and wherein the identifier is embedded in a digital watermark for the image.

[c54] 54. The system of claim 31, wherein the identifier is embedded in a digital watermark for the substitute copy, said identifier be embedded as a binary text string.

[c55] 55. The system of claim 31, wherein certain modules reside at a server computer that connects to mobile terminals.

[c56] 56. The system of claim 31, wherein at least some modules reside at mobile terminals, for providing distributed

processing.

[c57] 57. The system of claim 31, wherein said message is transmitted via the Internet from a client device to a server.

[c58] 58. The system of claim 57, wherein the client device connects to the Internet via wireless connectivity.